August 30th—♀ *Dinocampus* issued from cocoon.

September 12th—Beetle re-exposed to the parasite that issued from it.

November 4th—Second cocoon found.

November 10th—Beetle found dead. Dissection gave proof of successive parasitism.

November 17th—♀ *Dinocampus* issued from second cocoon.

These observations show conclusively that this particular parasite does not injure the vital organs of the host in the least. In the great majority of cases, however, the fatty lymph tissues of the host are left in such a depleted condition that the beetle soon dies, and the wound through which the parasite escapes in itself probably would be fatal in most instances. It is only the exceptionally vigorous beetles which recover. The observations also illustrate an adaptation of parasite to host rarely seen in such perfection elsewhere. Many of the parasites of homopterous insects do not kill their hosts until the latter in part at least have fulfilled their reproductive functions, but here we find a condition still more favorable to host and parasite alike, in which the host ultimately is left uninjured and free to reproduce its kind.

A NEW GENUS AND SPECIES OF NITIDULINI, WITH DESCRIPTIONS OF OTHER NEW SPECIES OF COLEOPTERA FROM INDIANA AND FLORIDA.

BY W. S. BLATCHLEY, INDIANAPOLIS, INDIANA.

Among the Coleoptera collected during the last two winters in Florida are a number of species which I am not able to identify from the literature extant. As I was making a trip to Cambridge, Philadelphia and Washington last August to study the types of certain Rhynchophora in the LeConte, Horn, and other Collections, I took some of these Florida species with me, and could find nothing similar to several of them in any of the collections. To Dr. E. A. Schwarz, of Washington, D. C., and Chas. W. Leng, of New York City, I am under obligations for aid in making the comparisons and for their opinions regarding the status of the species described below.

Family NITIDULIDÆ.

Quadrifrons, gen. nov.

Labrum small, its front edge broadly rounded, not emarginate. Front projecting abruptly from head, subquadrate, its sides parallel. Last joint of maxillary palpi oblong-cylindrical. Head without antennal grooves. Antennæ reaching middle of thorax, first joint robust, obconical, second oval, one-half length of third, which is slender and clavate; 4—8 short, as wide as long, closely united; club large, subglobose, 3-jointed, the sutures distinct, the two basal joints subequal, strongly transverse, the last joint obtusely conical, smaller but distinct. Eyes small, very prominent, coarsely granulated. Prosternal spine prolonged and convex between the coxæ, then abruptly bent downward; mesosternum not carinate. Front tibiæ with outer apical angle greatly prolonged in the form of a large triangular tooth, the outer sharp edge of the tibiæ behind this projection curved and minutely serrate, the inner apical angle with a short spine. Middle and hind tibiæ each armed at apex with two short, slender spines, their outer angles more or less produced, front tarsi feebly dilated, middle and hind ones slightly broadened; claws simple.

Related to *Perthalycra*, but the front more abrupt, labrum not bilobed, prosternum bent abruptly downward behind the front coxæ and structure of front tibiæ radically different.

Quadrifrons castaneus, sp. nov.

Oblong-oval, convex. Above dark reddish or chestnut-brown, rather thickly clothed with slender, prostrate golden-yellow hairs, those along the margins of thorax, elytra and legs longer and erect, forming a fringe; antennæ, legs and under surface somewhat paler reddish-brown. Head nearly three times as wide as front, finely and sparsely granulate. Thorax convex, more than twice as wide as long, sides broadly rounded, apex feebly and broadly emarginate, base truncate, hind angles rounded; disc minutely alutaceous, finely and sparsely granulate-punctate, each puncture bearing a prostrate yellow hair. Scutellum very large, semi-oval, its apex broadly rounded. Elytra oblong, convex, scarcely as wide as middle of thorax, one-third longer than wide, sides very feebly curved to apical fifth, then broadly rounded into the subtruncate apex; disc not striate, sculptured and pubescent like the thorax. Pygidium rather widely exposed, finely and sparsely granulate-punctate. Abdomen finely and rather closely punctate. Length 3.2 mm.

Dunedin, Florida, rare; April 5. Taken from beneath a decaying woody fungus.

Family Silphidæ.

Anogdus dissimilis, sp. nov.

Oval, convex, robust. Dark reddish brown, shining, almost glabrous; club of antennæ and a faint cloud on elytra fuscous-brown. Antennæ 10-jointed, the seventh or basal joint of club not much more than half the width of eighth and subequal in width to tenth. Head finely and rather sparsely punctate, the punctures in front tending to coalesce and form minute transverse grooves. Thorax convex, less than twice as wide as long, sides broadly rounded, apex broadly but feebly emarginate, base truncate, hind angles rounded; disc very finely, shallowly and sparsely punctate. Scutellum large, triangular, its apex acute. Elytra oval, convex, scarcely wider than thorax at middle, one-fourth longer than wide conjointly, sides parallel to beyond middle, then broadly curved to the obtusely rounded apex; striæ rather fine, their punctures small, round, very close-set; intervals feebly convex, minutely and rather closely punctate. Under surface finely and sparsely punctate. Length 2.2—2.4 mm.

Dunedin, Fla., scarce; Oct. 31—Nov. 23. Swept from flowers of the hoary lupine, *Lupinus diffusus* Nutt. In *A. capitatus* Lec., the only other described species, the seventh joint of antennae is as wide as the eighth and ninth, the thorax is nearly three times as wide as long, with arcuate base and coarsely punctured disc, and the striæ are crenately punctured. The margins of elytra in *dissimilis* are fringed with very short stiff hairs and the legs, especially the femora, bear numerous coarse, stiff, yellowish ones.

Family Coccinellidæ.

Brachyacantha floridensis, sp. nov.

Narrowly oval, convex. Black, sparsely and finely punctate: head between the eyes, a large spot near each front angle of thorax, and a humeral, basal and very large postmedian triangular spot on each elytron yellow; antennæ, palpi and legs yellow, the femora slightly clouded with fuscous. Elytra feebly and broadly curved from behind the humeri to apex. Length 2.5 mm.

Ocala, Florida; April 17. Allied to *B. quadripunctata* Melsh., but form distinctly narrower and more elongate-oval, punctures much sparser and colour of elytra and legs very different from that species or any of its varieties. The large yellow spot on each elytron is triangular, with its broad emarginate base extending from the margin near middle four-fifths the distance to suture, its sides gradually converging backwards to an obtusely rounded apex near the tip of each elytron. The elytra, in fact, are as much yellow as black, the black areas comprising a rather broad sutural stripe, a broad cross-bar on basal third, with a medium spur forward between the yellow basal and humeral spots, and a narrow apical bar. The larger yellow spot is narrowly connected along the margin and epipleura with the one on humerus.

Family Scarabæidæ.

Onthophagus nigrescens, sp. nov.

Broadly oval. Above uniform black, strongly shining; beneath reddish brown, antennæ and palpi paler. Clypeus with margin strongly reflexed, elevated and feebly emarginate at middle, surface of clypeus very sparsely and finely punctate. Vertical carina obsolete at middle, elevated at each end into a long tapering horn which extends above the level of the thorax. Thorax with front median portion of disc strongly convex and rounded but without a sign of a process; surface finely and rather sparsely punctate, each puncture bearing a very short erect blackish seta. Elytral striæ fine; intervals feebly convex, not alutaceous, each with two or three rows of minute punctures, their setæ extremely short, almost invisible. Pygidium coarsely and rather closely punctate. Under surface finely and very sparsely punctate, the abdomen minutely alutaceous. Length 6 mm.

Dunedin, Florida; Nov. 1. One male from a decaying fleshy fungus. Allied to *O. striatulus* Beauv., but that species is piceous-bronzed, with clypeus subtruncate at middle, setæ of both thorax and elytra much longer, whitish and inclined, and elytra intervals flat and alutaceous. A study of an extended series leads me to believe that *striatulus* is a distinct species and not a variety of *O. janus* Panz., as placed by Horn and retained in my Coleoptera of Indiana.

Family CHRYSOMELIDÆ.

Haltica vaccinia, sp. nov.

Oblong-oval, convex. Uniform dark coppery red, shining, the antennæ, except the basal joint, and the tarsi piceous Eyes large, coarsely facetted. Thorax three-fourths wider than long, sides broadly rounded, disc very minutely and sparsely punctate, the basal impression narrow, deep, entire. Elytra one-third wider at base than thorax, umbones feebly developed, not limited within by an impression; disc finely, rather closely and evenly punctate, the intervals between the punctures minutely alutaceous. Abdomen finely granulate-punctate. Last ventral of male with a narrow, longitudinal median impression, more distinct near apex; of female with a rounded impression each side near base. Length 3—3.2 mm.

Twenty or more specimens swept from the flowers and foliage of a dwarf huckleberry, *Vaccinium sp.* ? near Dunedin, Florida; March 11 - Dec. 13. Smaller and more slender-bodied than *H. ignita* Ill., the thorax broader, punctuation of elytra denser and more even, umbones less prominent and colour uniform, the under-surface and legs except tarsi being of the same coppery-red hue as the upper surface.

Family RHYNCHITIDÆ.

Rhynchites perplexus, sp. nov.

Oblong, subconvex. Above bluish-black, feebly brassy; antennæ, tibiæ and tarsi piceous; under surface and femora black; pubescence very fine, sparse, prostrate. Beak slightly shorter than thorax, male; one-fourth longer, female; very slightly widened and sculptured with coarse, elongate punctures in front of antennæ; front bluish, strongly alutaceous, finely and sparsely punctate. Thorax subcylindrical, as wide at middle as long, slightly narrowed in front and near base, densely and rather finely punctate, the punctures more or less confluent. Elytra at base one-half wider than thorax, sides subparallel for four-fifths their length, then broadly rounded to apex; disc feebly but distinctly depressed on basal third; strial punctures coarse, rounded, wider than intervals. Pygidium sculptured like front; side pieces of meso- and metasterna coarsely, rather closely punctate; abdomen finely, very sparsely punctate. Length 1.6—1.8 mm.

Crawford County, Indiana, June 24. Swept from low herbage. Okefinokee Swamp, Georgia, June; Leng collection. Massachusetts; LeConte collection. Easily distinguished from *R. æratus* Say by its colour, shorter beak of male and more feeble elytral depression. Resembles *R. cyanellus* Lec. but smaller, darker, beak much shorter and head much more finely punctured. The eyes of male are round and somewhat larger than the elliptical, more finely facetted ones of female.

Rhynchites elusus, sp. nov.

Oblong-oval. Black, feebly tinged with bronze; antennæ and legs piceous, pubescence gray, very fine and sparse. Beak of both sexes as long as head and thorax, distinctly widened and flattened near tip, much more finely sculptured than in *perplexus*, front bronzed, very finely alutaceous, minutely and very sparsely punctate. Thorax shorter and wider than in *perplexus*, widest at basal third, its disc finely, deeply and very densely punctate, the punctures not confluent. Elytra at base one-half wider than thorax, sides parallel for half their length, then broadly curved to the rounded apex; disc widely and shallowly depressed at basal third; strial punctures small, rounded, close-set. Abdomen alutaceous, finely and sparsely punctate. Length 1.8—2 mm.

Dunedin, Florida, March 25—April 13. Six specimens swept from huckleberry blossoms. The much longer and apically wider beak, more finely sculptured front and broader thorax and elytra separate this readily from both *æratus* and *perplexus*. It is probable that *elusus* and *perplexus* have been hitherto confused in collections with *æratus* Say. The latter is distinctly coppery in hue, with the sub-basal elytral depression much more distinct and the beak in both sexes as long as thorax.